



AMENDMENTS TO THE CLAIMS:

Claims 1-74 (canceled)

Claim 75 (new): A device, comprising:

a plurality of organic photosensitive subcells stacked in a superposed relationship over a substrate;

a first organic photosensitive subcell of the plurality of organic photosensitive subcells comprising a first material having a first absorption characteristic;

a second organic photosensitive subcell of the plurality of organic photosensitive subcells comprising a second material having a second absorption characteristic, wherein the second absorption characteristic is different from the first absorption characteristic; and

a conductive layer disposed between and in a superposed relationship with the first subcell and the second subcell, wherein the conductive layer is an electrode or charge transfer layer, wherein the conductive layer is transparent or semitransparent, and wherein the conductive layer is contiguous.

Claim 76 (new): The device of claim 75, wherein the conductive layer has a thickness of about 1000 angstroms or greater.

Claim 77 (new): The device of claim 76, wherein the conductive layer includes indium tin oxide.

Claim 78 (new): The device of claim 75, wherein the conductive layer is a part of the first organic subcell.

Claim 79 (new): The device of claim 75, wherein the conductive layer is not a part of the first organic subcell.

Claim 80 (new): The device of claim 75, wherein the conductive layer is an electrode.

Claim 81 (new): The device of claim 75, wherein the conductive layer is a charge transfer

layer.

Claim 82 (new): The device of claim 75, wherein the first material has an absorption maxima that is different from the absorption maxima of the second material.

Claim 83 (new): The device of claim 75, wherein the first and second subcells are electrically connected in series.

Claim 84 (new): The device of claim 75, wherein the first and second subcells are electrically connected in parallel.

Claim 85 (new): The device of claim 75, wherein the device is optimized for use as a photodetector.

Claim 86 (new): The device of claim 75, wherein the device is optimized for use as a photovoltaic cell.

Claim 87 (new): The device of claim 75, wherein the conductive layer permits at least 50% of the ambient electromagnetic radiation to be transmitted through the layer.

Claim 88 (new): A device, comprising:

a first organic photosensitive subcell having a first spectral sensitivity, stacked in a superposed relationship with a substrate;

a second organic photosensitive subcell, stacked in a superposed relationship with the first organic photosensitive subcell over the substrate, the second organic photosensitive subcell having a second spectral sensitivity that is different from the first spectral sensitivity; and

a conductive layer disposed between and in a superposed relationship with the first subcell and the second subcell, wherein the conductive layer is an electrode or charge transfer layer, wherein the conductive layer is transparent or semitransparent, and wherein the conductive layer is contiguous.

Claim 89 (new): The device of claim 88, wherein the conductive layer has a thickness of about 1000 angstroms or greater.

Claim 90 (new): The device of claim 89, wherein the conductive layer includes indium tin oxide.

Claim 91 (new): The device of claim 88, wherein the conductive layer is a part of the first organic subcell.

Claim 92 (new): The device of claim 88, wherein the conductive layer is not a part of the first organic subcell.

Claim 93 (new): The device of claim 88, wherein the conductive layer is an electrode.

Claim 94 (new): The device of claim 88, wherein the conductive layer is a charge transfer layer.

Claim 95 (new): The device of claim 88, wherein the first subcell has an absorption maxima that is different from the absorption maxima of the second subcell.

Claim 96 (new): The device of claim 88, wherein the first and second subcells are electrically connected in series.

Claim 97 (new): The device of claim 88, wherein the first and second subcells are electrically connected in parallel.

Claim 98 (new): The device of claim 88, wherein the device is optimized for use as a photodetector.

Claim 99 (new): The device of claim 88, wherein the device is optimized for use as a

photovoltaic cell.

Claim 100 (new): The device of claim 88, wherein the conductive layer permits at least 50% of the ambient electromagnetic radiation to be transmitted through the layer.

Claim 101 (new): A device, comprising:
a plurality of organic photosensitive subcells stacked in a superposed relationship over a substrate;

wherein two adjacent subcells are connected by a contiguous charge transfer layer that is isolated from external circuits, wherein the charge transfer layer is transparent or semitransparent.

Claim 102 (new): The device of claim 101, wherein every pair of adjacent subcells are connected by a contiguous charge transfer layer that is not directly connected electrically to an external circuit.

Claim 103 (new): The device of claim 101, wherein the charge transfer layer comprises a low resistance metal substitute material that has been deposited by sputtering.

Claim 104 (new): The device of claim 103, wherein the charge transfer layer further comprises a metallic layer.

Claim 105 (new): The device of claim 101, wherein the device is optimized for use as a photodetector.

Claim 106 (new): The device of claim 101, wherein the device is optimized for use as a photovoltaic cell.

Claim 107 (new): The device of claim 101, wherein the charge transfer layer has a thickness of about 1000 angstroms or greater.

Claim 108 (new): The device of claim 107, wherein the charge transfer layer includes indium tin oxide.

Claim 109 (new): The device of claim 101, wherein the charge transfer layer permits at least 50% of the ambient electromagnetic radiation to be transmitted through the layer.
